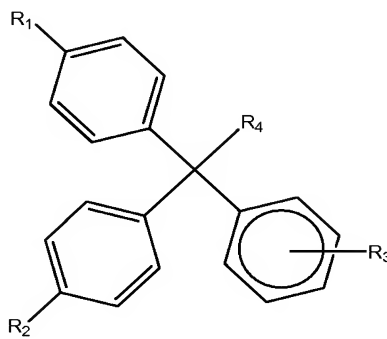


This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A method of treating patients who have diseases characterized bone loss comprising the step of administering to said patient an amount of TRANCE/RANK inhibitors effective to inhibit osteoclastogenesis and/or osteoclast function, wherein said TRANCE/RANK inhibitor is a compound having the Formula I



Formula I

wherein:

R<sub>1</sub>, and R<sub>2</sub> are, independently, selected from the group consisting of -H, -OCH<sub>3</sub>, -CH<sub>2</sub>CH<sub>3</sub>, -*t*-butyl, 3-carboxy-4-chlorophenylamino, -N-(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, and -O(O)C-Ph;

R<sub>3</sub> is selected from the group consisting of -H, ethyl, -OCH<sub>3</sub>, -Cl, Br, F, 3carboxy-4 chlorophenylamino, -N-(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, -*t*-butyl, and -OC(O)-Ph, and is not limited to attachment at any certain position on the phenyl ring to which it is attached; and

R<sub>4</sub> is selected from the group consisting of -Br,-Cl, and -F.

2. (Cancelled)

3. (Original) The method of claim 2 wherein  $R_3$  is attached at either the 1 or 4 position of the phenyl ring.

4. (Previously Presented) The method of claim 1 wherein said TRANCE/RANK inhibitor is a compound having the Formula I wherein:

$R_1$ ,  $R_2$ , and  $R_3$  are  $-OCH_3$ ,  $R_3$  is attached at the 4 position,  $R_4$  is  $-Cl$ ;

$R_1$ , and  $R_2$  are methyl,  $R_3$  is ethyl, attached at the 4 position,  $R_4$  is  $-Cl$ ;

$R_1$ , and  $R_2$  are  $-OCH_3$ ,  $R_3$  is  $-Cl$ , attached at the 2 position,  $R_4$  is  $-Cl$ ;

$R_1$ , and  $R_2$  are  $-OCH_3$  and  $R_3$  is H,  $R_4$  is  $-Cl$ ;

$R_1$ , is H,  $R_2$  and  $R_3$  are 3-carboxy-4-chlorophenylamino, and  $R_3$  is attached at the 4 position,  $R_4$  is  $-Cl$ ;

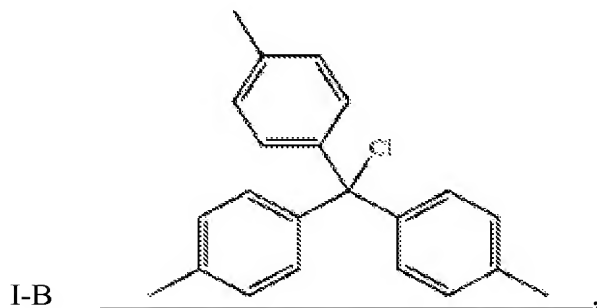
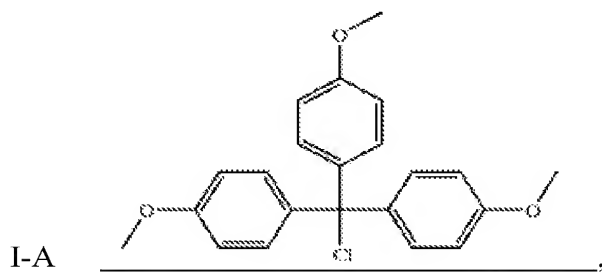
$R_1$  and  $R_2$  are  $-N(CH_2CH_2OH)_2$ ,  $R_3$  is Cl, attached at the 4 position,  $R_4$  is  $-Cl$ ;

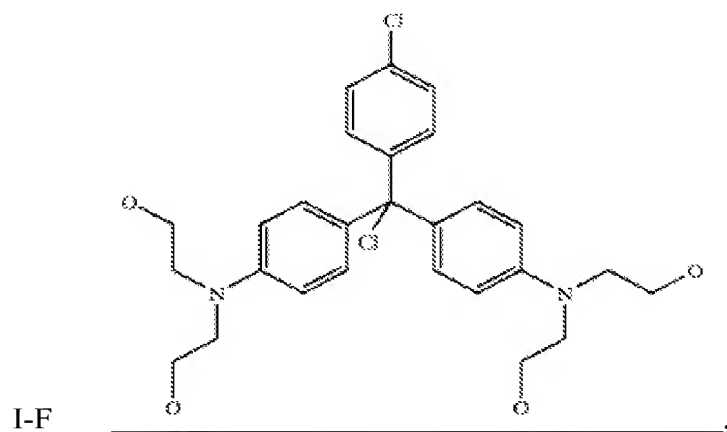
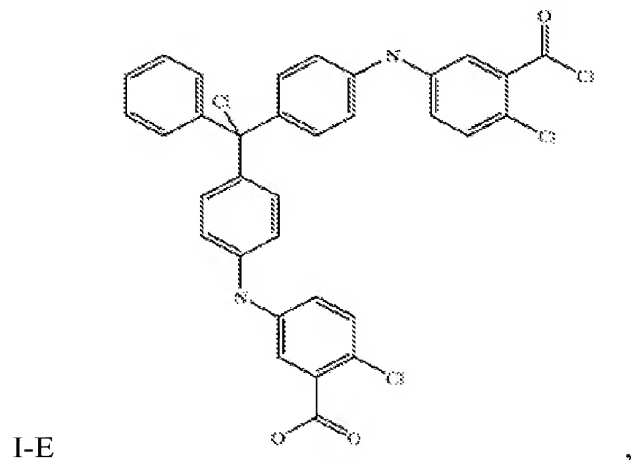
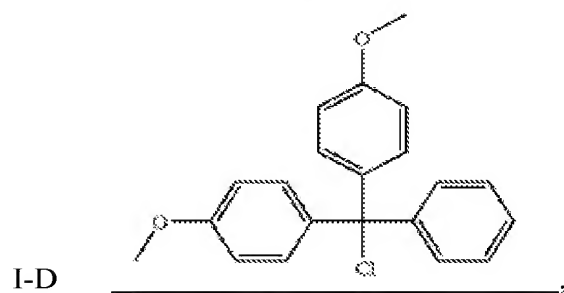
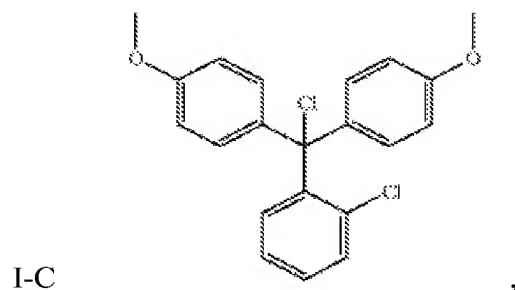
$R_1$ ,  $R_2$ , and  $R_3$  are *t*-butyl,  $R_3$  is attached at the 4 position,  $R_4$  is  $-Cl$ ;

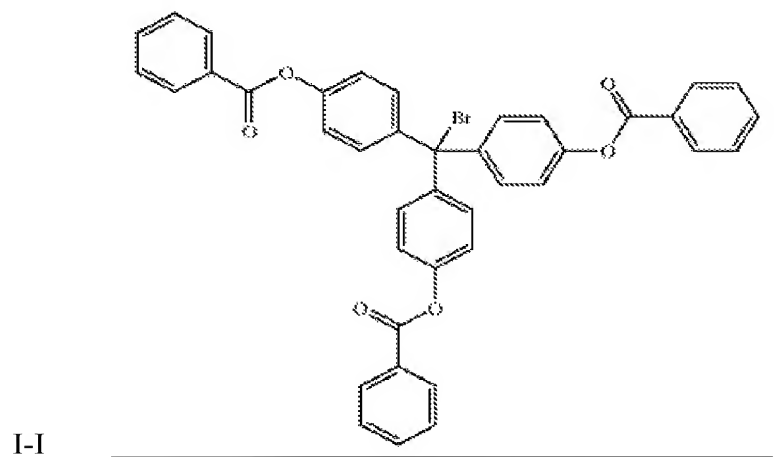
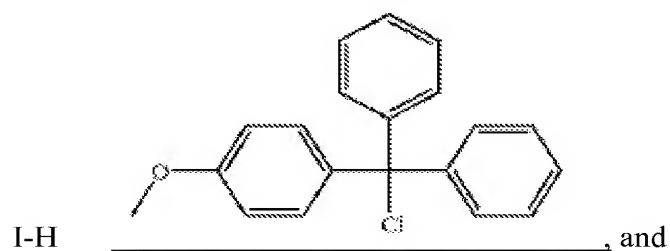
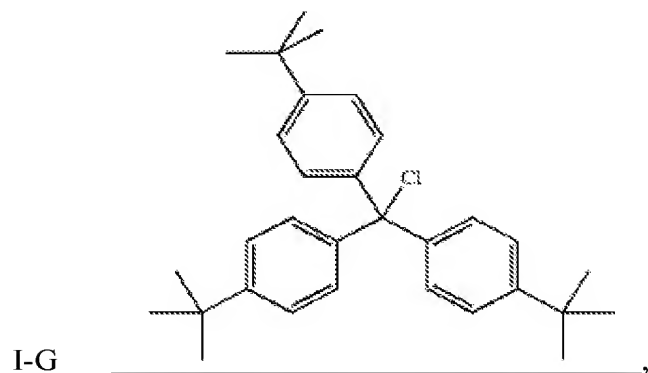
$R_1$ , is  $-OCH_3$ ,  $R_2$  and  $R_3$  are H,  $R_4$  is Cl; or

$R_1$ ,  $R_2$ , and  $R_3$  are benzoate,  $R_3$  is attached at the 4 position,  $R_4$  is Br.

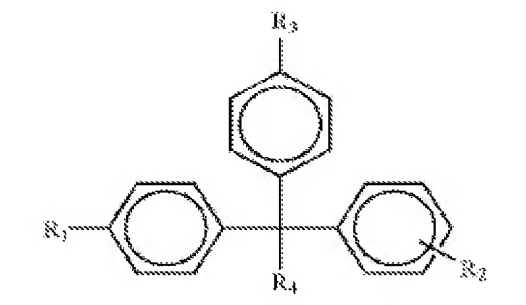
5. (Currently amended) The method of claim 1 wherein said TRANCE/RANK inhibitor is selected from the group consisting of:







6. (Withdrawn/Currently amended) The method of claim 1 wherein said TRANCE/RANK inhibitor is a compound having the Formula II

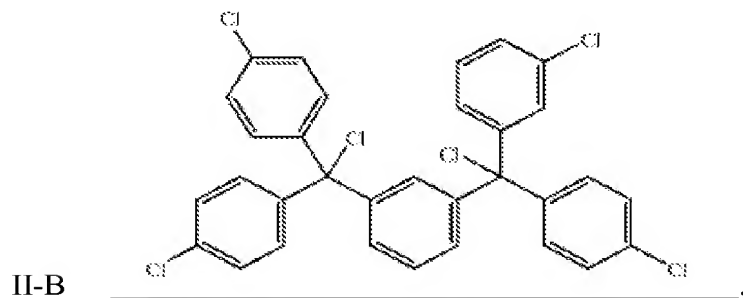
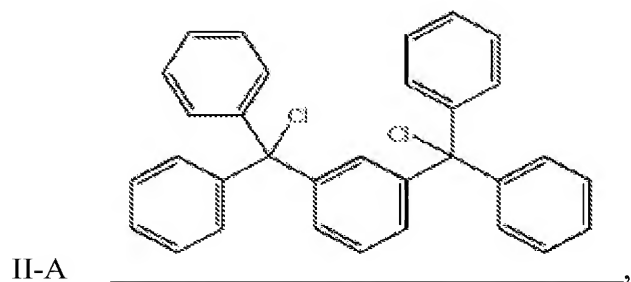


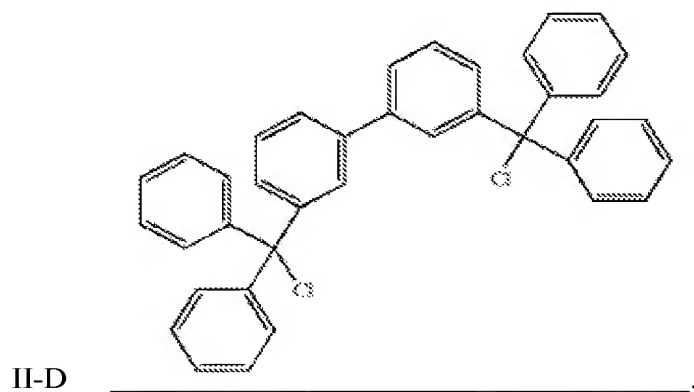
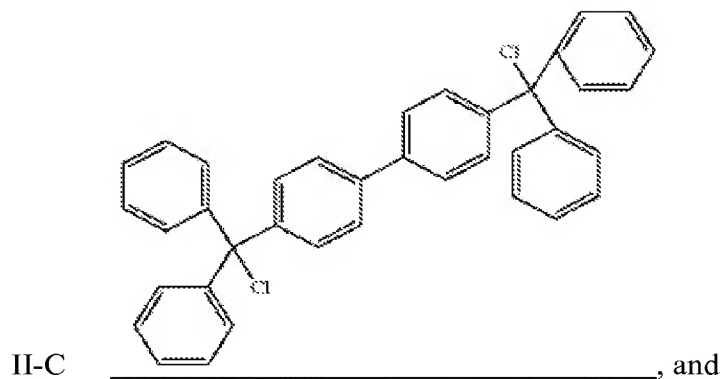
wherein:

R<sub>1</sub> is selected from the group consisting of -diphenylchloromethyl, -di(4chlorophenyl)chloromethyl, and 4-(diphenylchloromethyl)phenyl; and R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> are independently selected from the group consisting of -Br, -Cl, and -F.

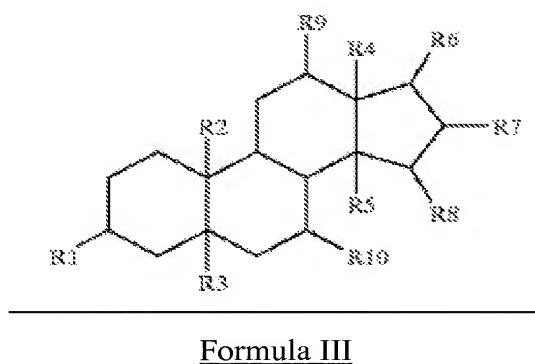
7. (Withdrawn) The method of claim 6 wherein R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are each -Cl.

8. (Withdrawn/Currently amended) The method of claim 1 wherein the TRANCE/RANK inhibitor is selected from the group consisting of compounds:





9. (Withdrawn/Currently amended) The method of claim 1 wherein said inhibitor is a compound having Formula III



wherein:

$R_1 = (NO_2)_2, O(CO)CH_3, OH, O(CO)CH_3, O(CO)(CH_2)_2COOH, O(CO)CH_2Br, O(CO)CH_2Cl, O(CO)CH_2N(CH_3)_3, \text{ or } OC_5H_9O;$

R<sub>2</sub> = CH<sub>2</sub>O(NO<sub>2</sub>), CHO, CH<sub>2</sub>O(NO<sub>2</sub>), CN, CH<sub>3</sub>, COOH, CHNOH,  
CH<sub>2</sub>O(CO)(CH<sub>2</sub>)<sub>2</sub>COOH, CHN(NH)CONH<sub>2</sub>, CHN(NH)C<sub>6</sub>H<sub>5</sub>,  
CHN(CH<sub>2</sub>)C<sub>6</sub>H<sub>5</sub>, CH<sub>2</sub>N(CH<sub>2</sub>)<sub>2</sub>OH, CH<sub>2</sub>NC<sub>6</sub>H<sub>5</sub>, or CH<sub>2</sub>N(NH)CSNH<sub>2</sub>;

R<sub>3</sub> = OH, or H;

R<sub>4</sub> = CH<sub>3</sub>;

R<sub>5</sub> = OH;

R<sub>6</sub> = C<sub>4</sub>H<sub>3</sub>O<sub>2</sub>, N(NHCO)C<sub>6</sub>H<sub>4</sub>Cl, N(NHCO)C<sub>6</sub>H<sub>4</sub>F, COOH, O,  
COCH<sub>3</sub>, CH(CH<sub>3</sub>)(CH<sub>2</sub>)<sub>2</sub>COOH, CH(CH<sub>3</sub>)(CH<sub>2</sub>)<sub>2</sub>COOCH<sub>3</sub>,  
O(CO)C<sub>6</sub>H<sub>5</sub>, or OH;

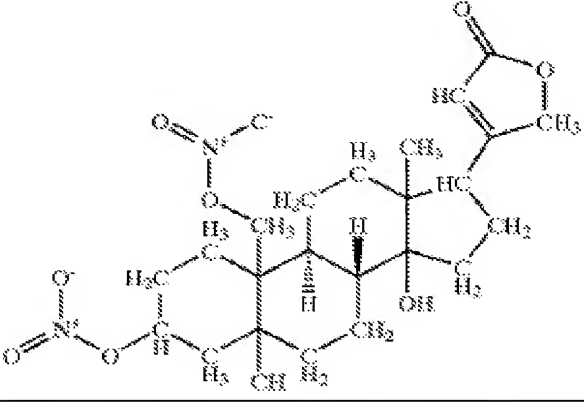
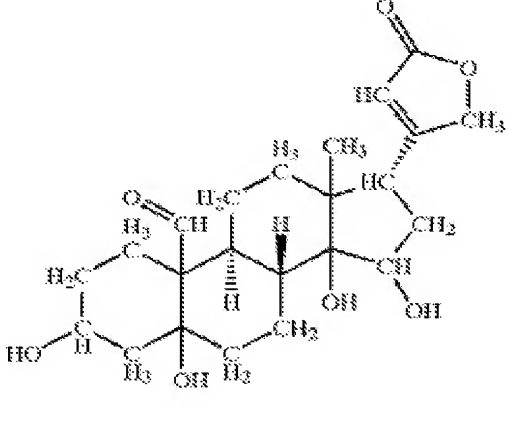
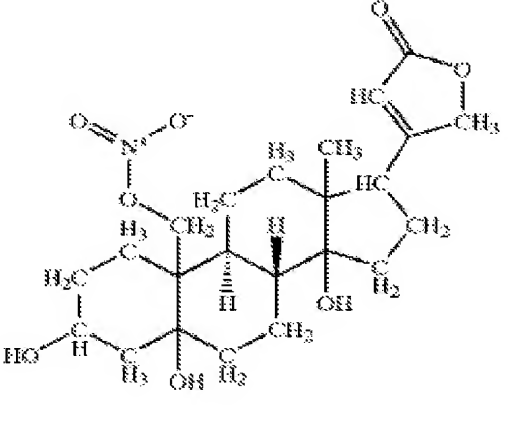
R<sub>7</sub> = O(CO)CH<sub>2</sub>N(CH<sub>3</sub>)<sub>3</sub>, or O(CO)CH<sub>3</sub>;

R<sub>8</sub> = OH;

R<sub>9</sub> = O, or OH; and R<sub>10</sub> = O

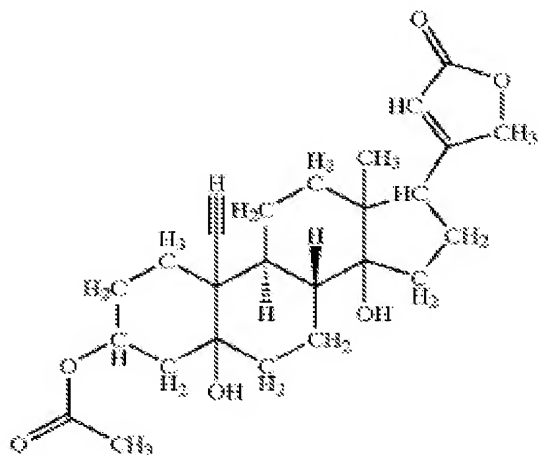
R<sub>10</sub> = O.

10. (Withdrawn/currently amended) The method of claim 1 wherein the inhibitor is selected from the group consisting of of compounds III-1 to III-31;

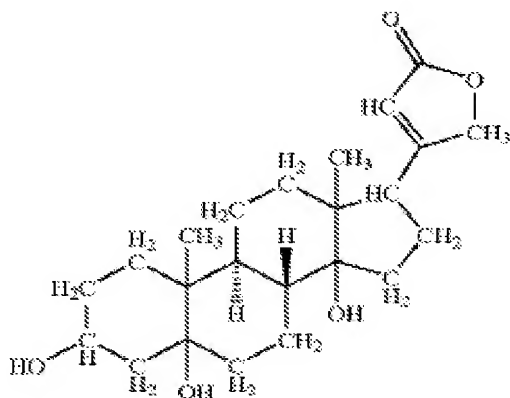
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<u>III-2</u>	
<u>III-3</u>	



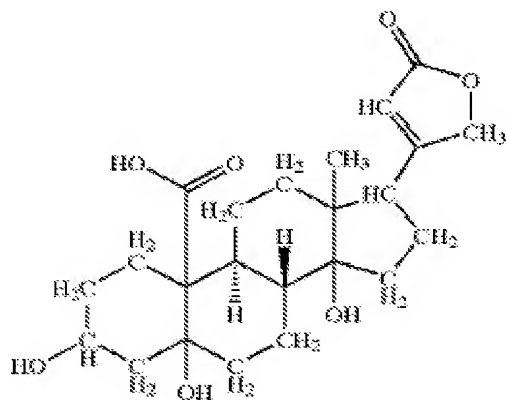
III-4



III-5



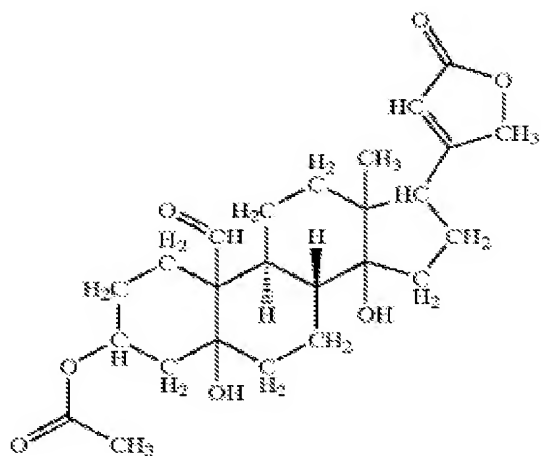
III-6



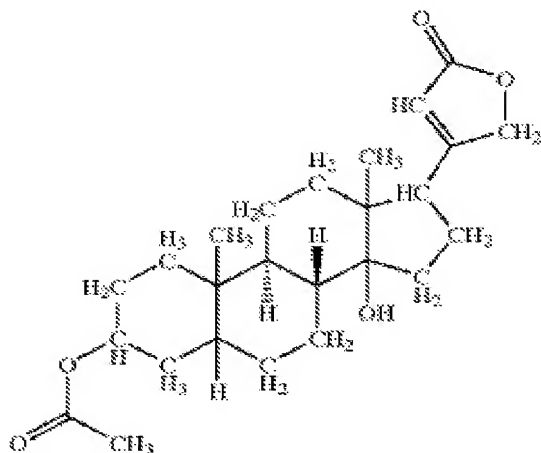
**DOCKET NO.:** UPN-5191 / L2091X  
**Application No.:** 10/625,073  
**Office Action Dated:** July 31, 2008

**PATENT**

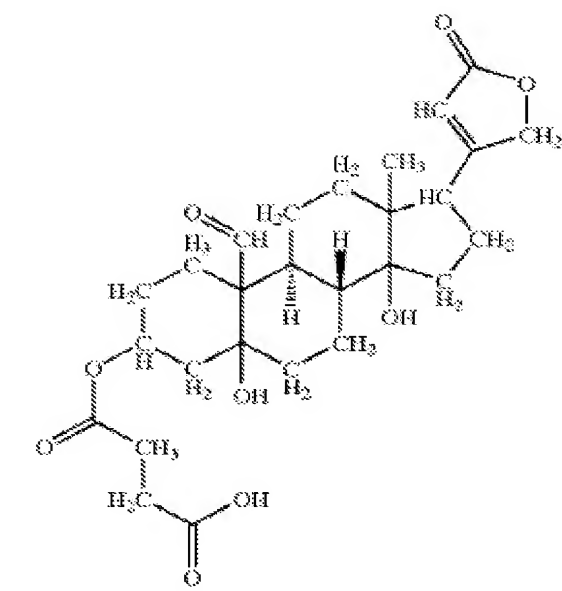
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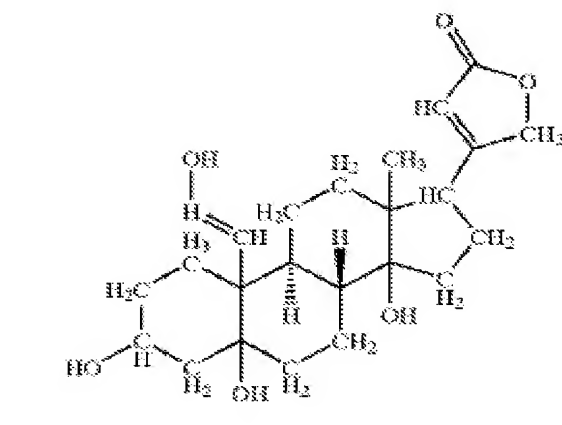
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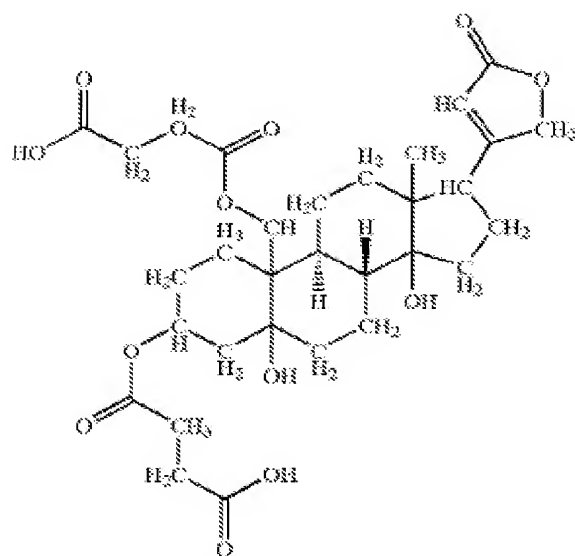
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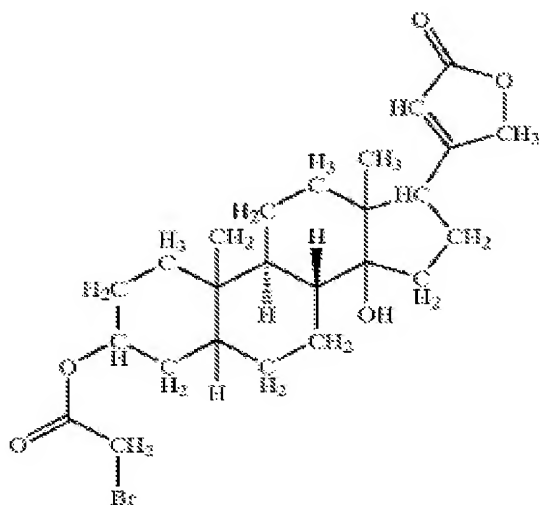
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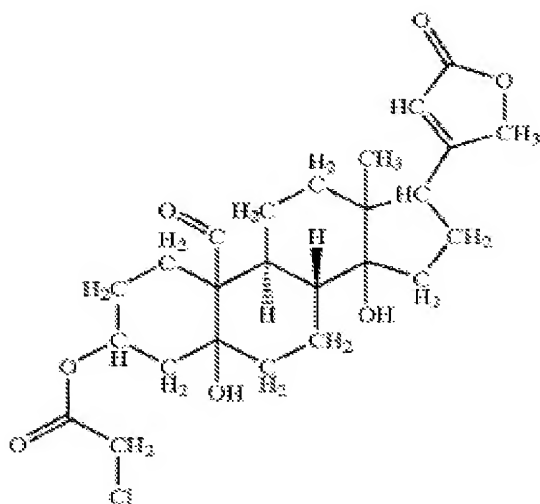
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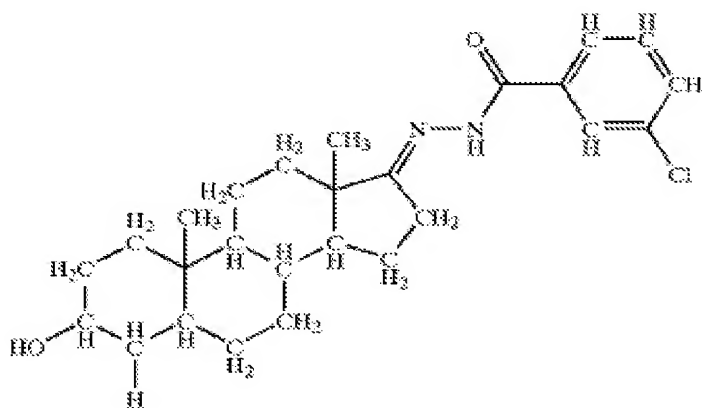
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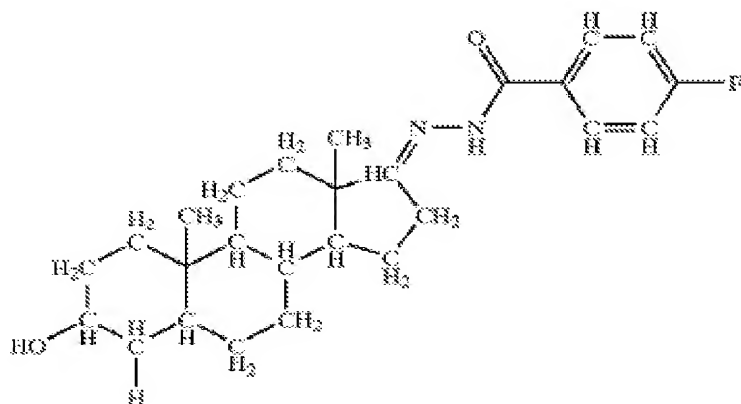
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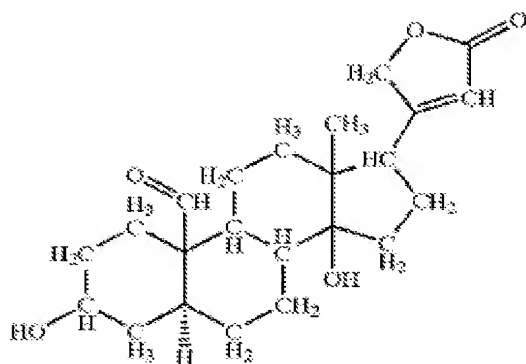
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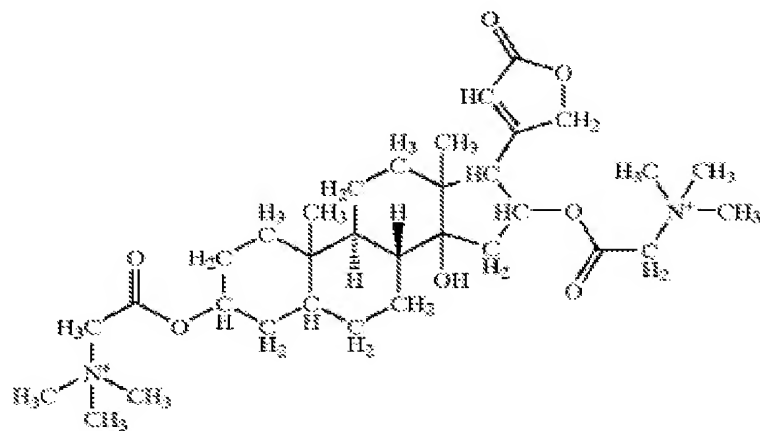
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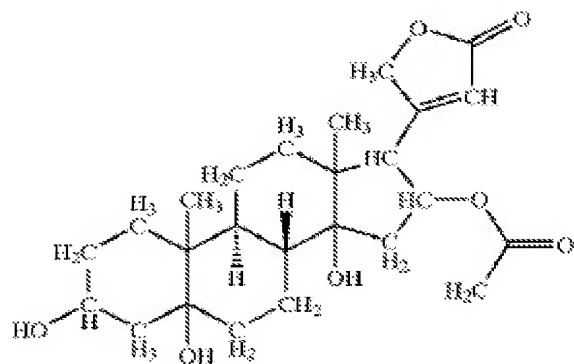
III-16



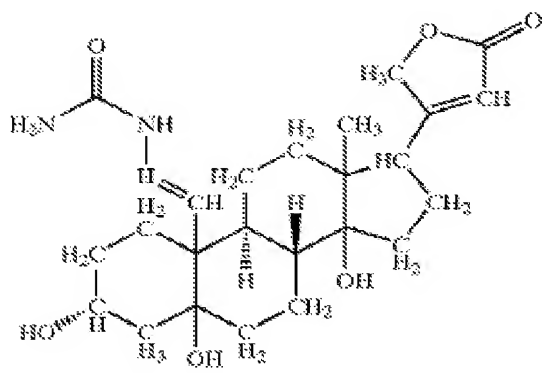
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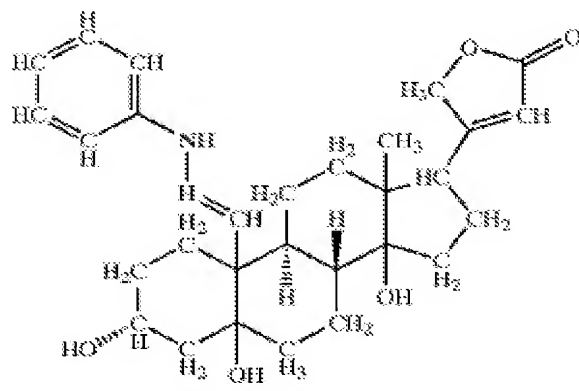
III-18



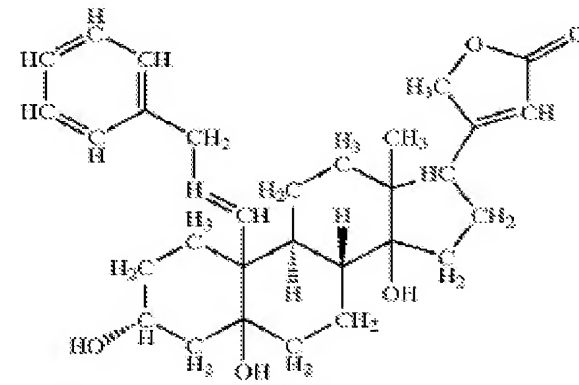
III-19



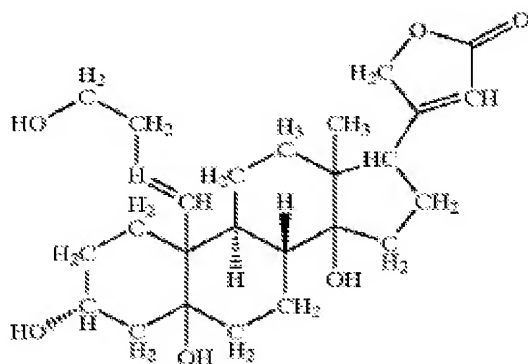
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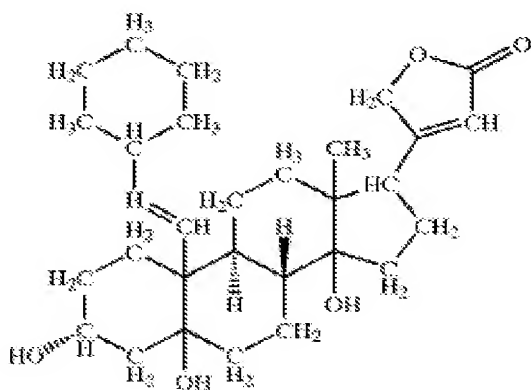
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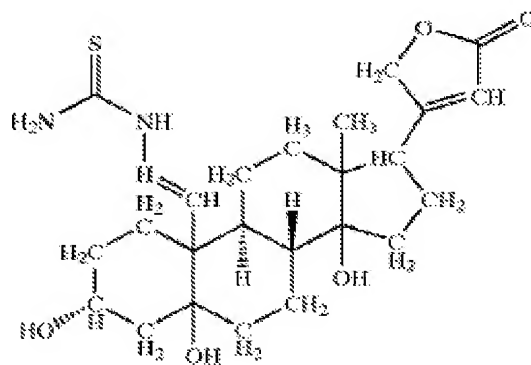
III-22



III-23

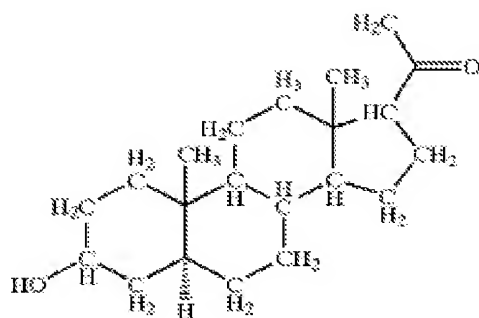


III-24

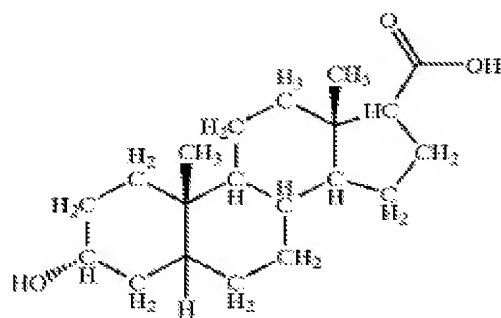




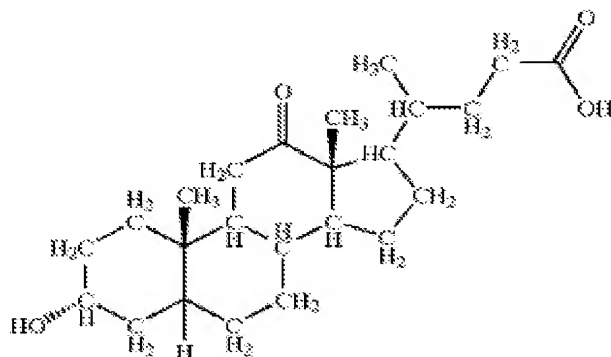
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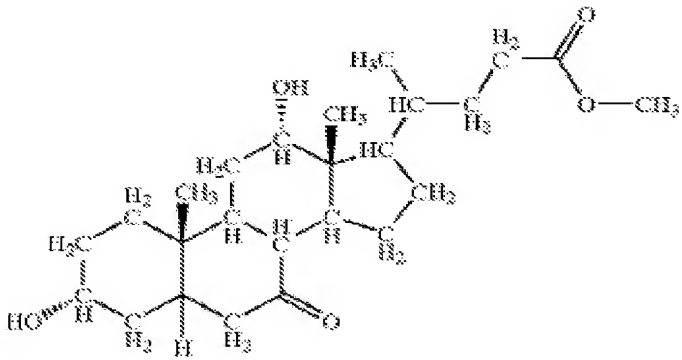
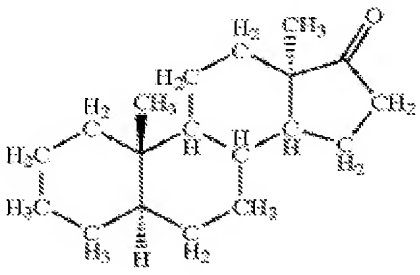
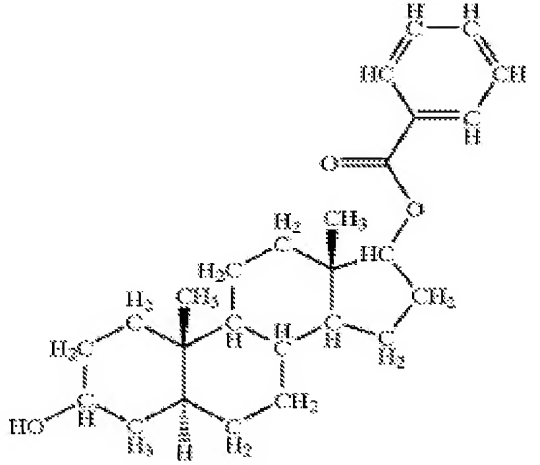
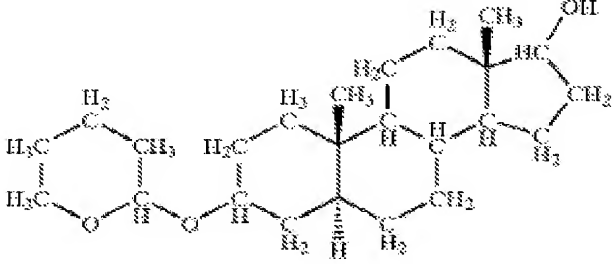


III-26

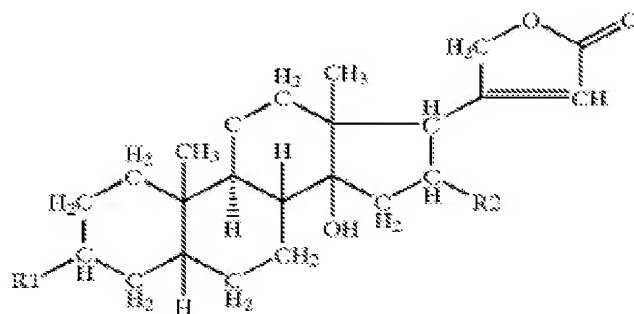


III-27



<p><u>III-28</u></p>	
<p><u>III-29</u></p>	
<p><u>III-30</u></p>	
<p><u>III-31</u></p>	

11. (Withdrawn/currently amended) The method of claim 1 wherein said inhibitor is a compound having Formula IV



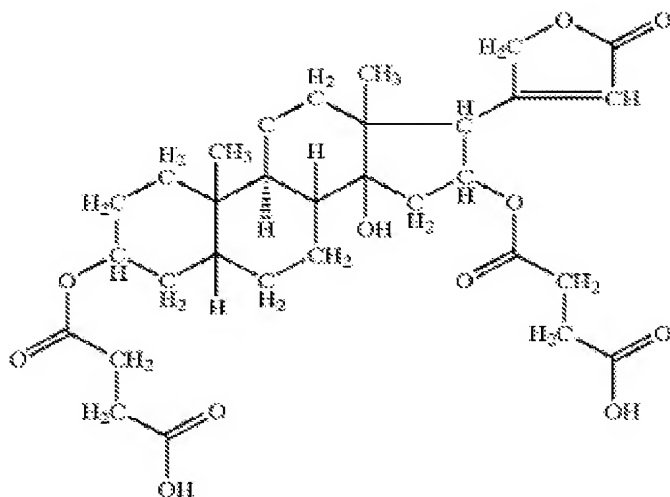
Formula IV

wherein:

R1 = O(CO)(CH<sub>2</sub>)<sub>2</sub>COOH, or O(CO)CH<sub>2</sub>Br; and

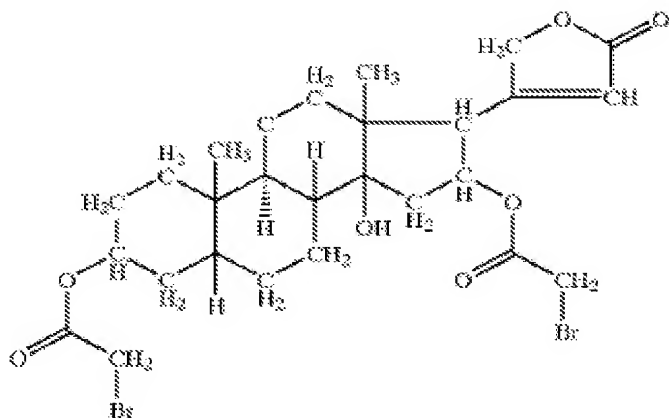
R2 = O(CO)(CH<sub>2</sub>)<sub>2</sub>COOH, or O(CO)CH<sub>2</sub>Br.

12. (Withdrawn/currently amended) The method of claim 1 wherein the inhibitor is selected from the group consisting of of compounds

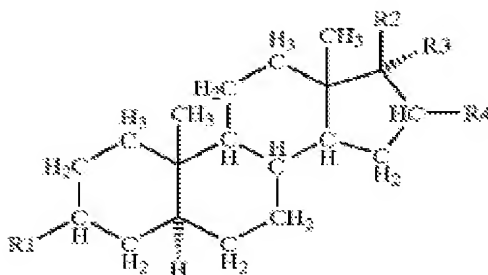


IV-1

and



13. (Withdrawn/currently amended) The method of claim 1 wherein said inhibitor is a compound having Formula V



Formula V

wherein:

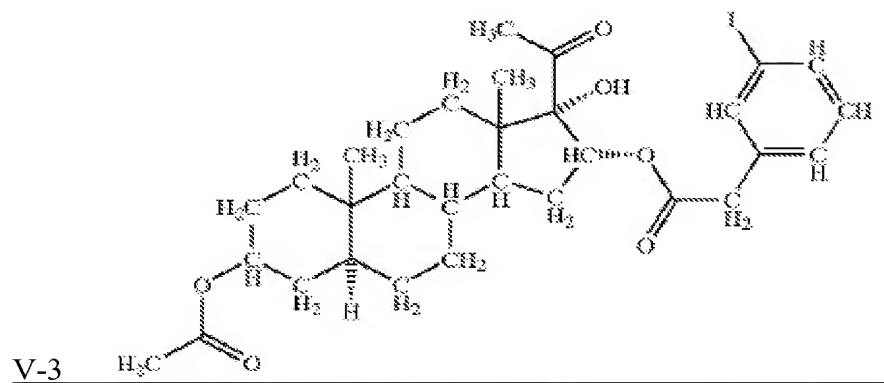
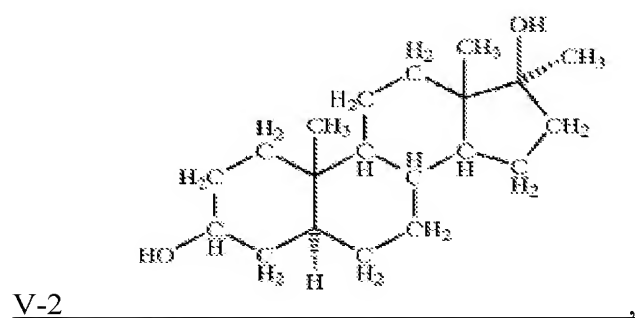
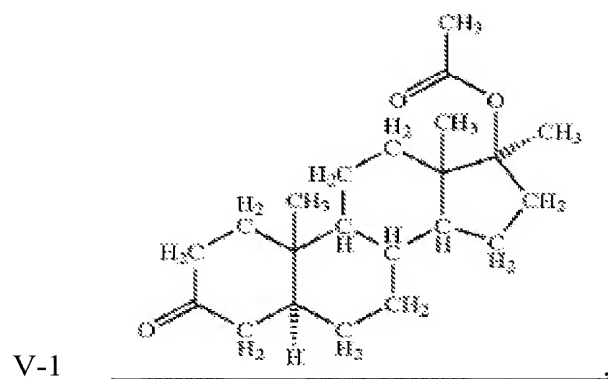
$R_1 = O, OH, \text{ or } O(CO)CH_3;$

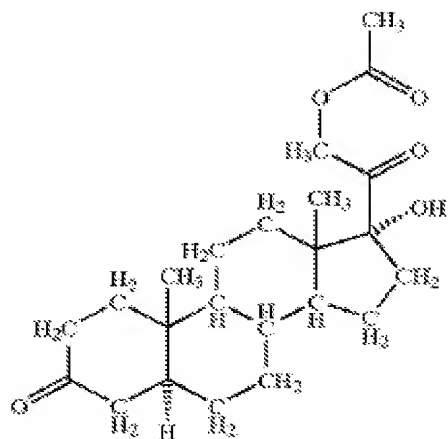
$R_2 = O(CO)CH_3, OH, CO(CH_3), \text{ or } CO(CH_2)O(CO)CH_3;$

$R_3 = CH_3, \text{ or } OH; \text{ and}$

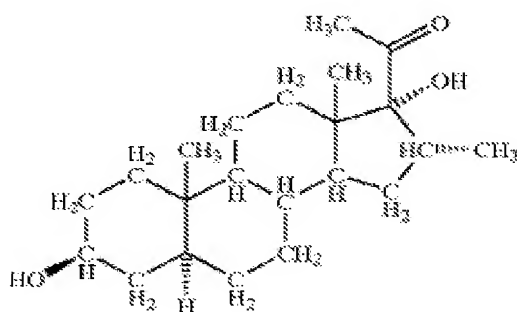
$R_4 = O(CO)CH_2C_6H_4I, \text{ or } CH_3.$

14. (Withdrawn/currently amended) The method of claim 1 wherein the inhibitor is selected from the group consisting of compounds





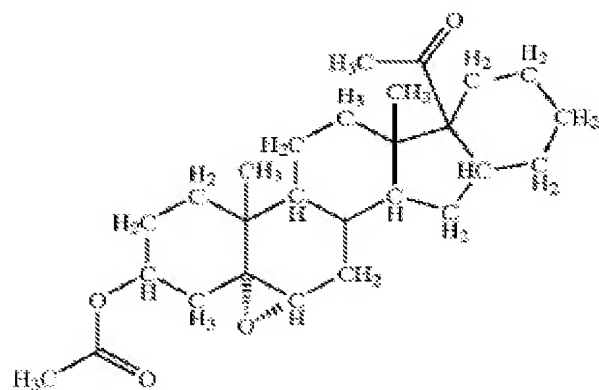
V-4 \_\_\_\_\_, and



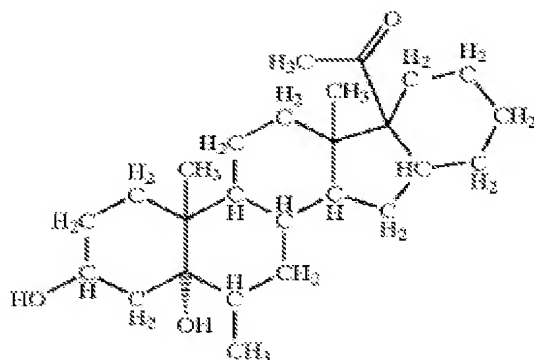
V-5 \_\_\_\_\_.

15. Canceled

16. (Withdrawn/Currently amended ) The method of claim 1 wherein the inhibitor is selected from the group consisting of compounds

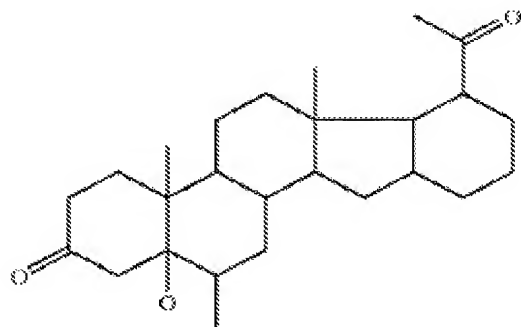


VI-1 \_\_\_\_\_ and

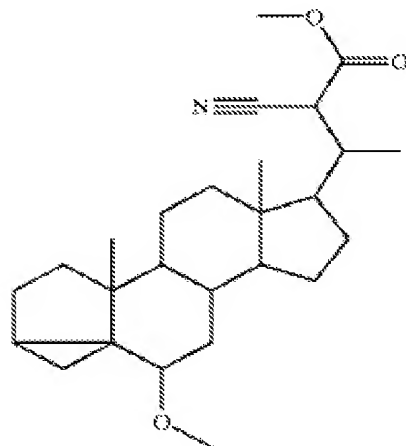


VI-[[11]] 2 \_\_\_\_\_.

17. (Withdrawn/currently amended) The method of claim 1 wherein the inhibitor is selected from the group consisting of of compounds

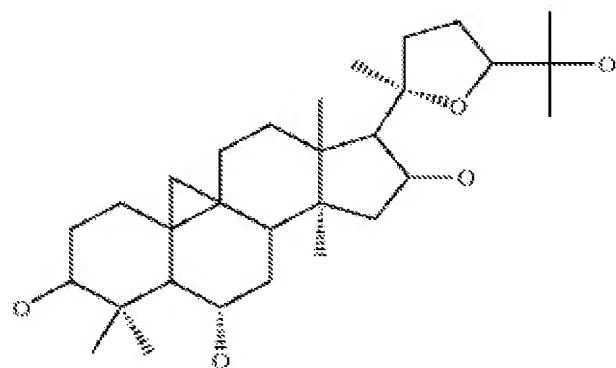


VII \_\_\_\_\_.

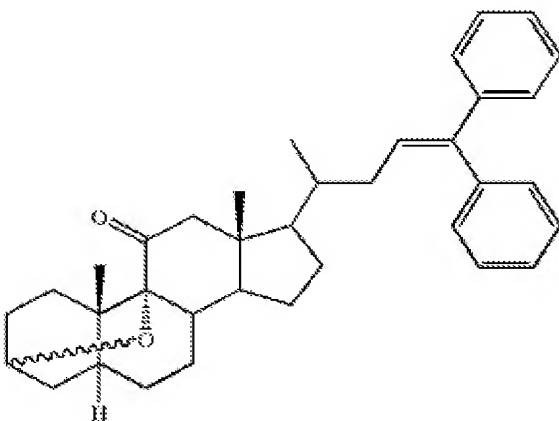


VIII \_\_\_\_\_.

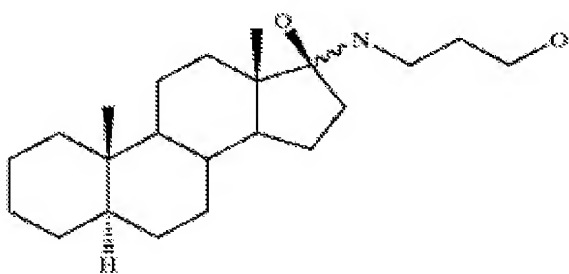
IX



X



XI

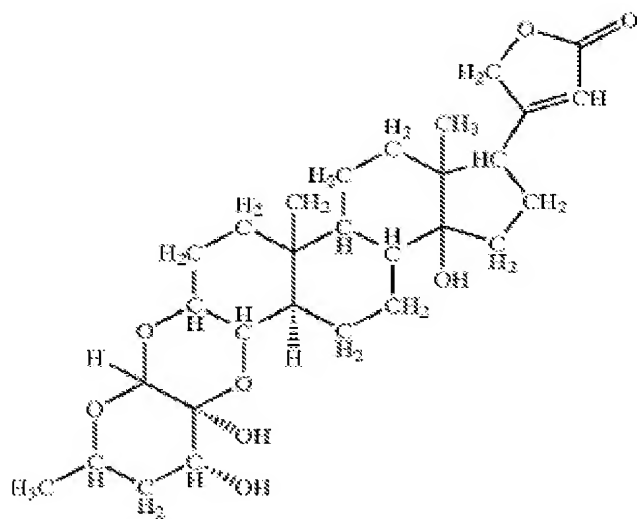


, and



**DOCKET NO.:** UPN-5191 / L2091X  
**Application No.:** 10/625,073  
**Office Action Dated:** July 31, 2008

**PATENT**



XII

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Claims 18-43: (Cancelled)